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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/802,008

03/16/2004

Leo M. Pedlow JR.

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EXAMINER

HENNING, MATTHEW T

ART UNIT

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2431

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10/16/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/802,008	Applicant(s) PEDLOW ET AL.	
	Examiner MATTHEW T. HENNING	Art Unit 2431	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 June 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-38 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>5/5/08; 8/4/08</u> . | 6) <input type="checkbox"/> Other: _____ |

1 This action is in response to the communication filed on 6/23/2008.

2 **DETAILED ACTION**

3 Claims 1-38 have been examined.

4 ***Response to Arguments***

5 Applicant's arguments, filed 6/23/2008, with respect to the rejection(s) of claim(s) 1-28
6 under 35 USC 101 have been fully considered and are persuasive. Therefore, the rejection has
7 been withdrawn. Furthermore, the applicants' arguments with respect to the rejection(s) of
8 claim(s) 1-38 under 35 USC 103(a), in view of Bonan, have been considered and are persuasive.
9 However, upon further consideration, a new ground(s) of rejection is made in view of Unger, as
10 shown below.

11 All objections and rejections not set forth below have been withdrawn.

12
13 ***Information Disclosure Statement***

14 The information disclosure statement(s) (IDS) submitted prior to this office action are in
15 compliance with the provisions of 37 CFR 1.97. Accordingly, the examiner is considering the
16 information disclosure statements. The examiner notes that the previously submitted IDS
17 statement contain documents which not appear to be relevant to the instant application. If the
18 applicants disagree, and wish to have the examiner reconsider the documents, the applicant is
19 requested to provide a list of the documents which the applicants feel is relevant to the instant
20 application, along with an explanation of each of these documents and why it is relevant to the
21 instant application.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 1-2, 7, 8, 15-20, 29-30, and 34-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Unger et al. (US Patent Application Publication 2003/0026423) hereinafter referred to as Unger, and further in view of Colligan et al. (US Patent Number 6,415,031) hereinafter referred to as Colligan.

Regarding claims 1 and 29, Unger disclosed a method of pre-processing content in a video on demand (VOD) system [See Unger Abstract], wherein the content is identified by a first set of packet identifiers (PIDs) (Primary PID and Secondary PID), the method comprising: receiving content (See Unger Paragraph 0064), the content having packets that are to be encrypted by a first encryption system (See Unger Paragraph 0138); selecting packets in the content according to a selective encryption selection criterion to produce selected packets (See Unger Paragraph 0064); duplicating the selected packets to produce duplicate copies of the original packets (See Unger Paragraph 0064); identifying the duplicate copies using a second set of PIDs (See Unger Paragraph 0064: Primary PID and Secondary PID); inserting the duplicate copies of the original packets identified by the second set of PIDs into the content (See Unger

Paragraph 0064), but Unger failed to specifically disclose that the packets that are to be encrypted being marked by a set encryption flag for all packets designated to be encrypted, and clearing all encryption flags in the content except for the selected packets having the first set of PIDs, thereby producing content having identifiable duplicate selected packets suitable for selective encryption. Unger did, however, disclose that the packets, at least once encrypted, had a set of flags indicating whether they were encrypted or not (See Unger Paragraph 0138).

Colligan teaches that in a video on demand system, wherein less than all packets are to be encrypted, the packets to be encrypted should be marked using scramble control flags in order to tell the encryptor which packets to encrypt [Colligan Col. 11 Lines 31-57].

It would have been obvious to the ordinary person skilled in the art at the time of invention to employ the teachings of Colligan in the content packet encryption system of Unger by setting a scramble control flag in each packet to be encrypted. This would have been obvious because the ordinary person skilled in the art would have been motivated to provide a way for the encryptor to tell which packets to encrypt. In this combination, it further would have been obvious to clear the flag of all packets which are not to be encrypted. This would have been obvious because the ordinary person skilled in the art would have been motivated to indicate that these packets are not to be encrypted by the encryptor.

Regarding claims 2 and 30, Unger and Colligan taught that the encryption flag is encoded using transport_scrambling_control data bits [See Colligan Col. 11 Lines 31-57].

Regarding claims 7-8 and 34, Unger and Colligan taught generating a program association table (PAT) and a program map table (PMT) identifying the second set of PIDs, and

1 storing the PAT, the PMT, and the content on a VOD server [See Paragraphs 0048-0063 and
2 associated tables].

3 Regarding claims 15-16 and 35, Unger and Colligan taught encrypting the packets having
4 the encryption flag set using the first encryption system, and that the encryption under the first
5 encryption system is carried out in an off line encryption system (See Unger Paragraph 0064 and
6 Colligan Col. 11 Lines 31-57).

7 Regarding claims 17 and 36, Unger and Colligan taught encrypting the duplicate copies
8 using a second encryption system (See Unger Paragraph 0064).

9 Regarding claim 18, although Unger and Colligan did not specifically teach adjusting a
10 program clock reference (PCR) in packets containing adaptation fields to account for insertion of
11 the duplicate copies, it well known in the art at the time of invention that MPEG streams have a
12 required PCR and that multiplexing streams can cause delays in the timing, which is solved by
13 re-stamping the packets with an adjusted PCR. Therefore, it would have been obvious to the
14 ordinary person skilled in the art at the time of invention that inserting duplicate packets into the
15 packet stream would require adjustment of the PCR. This would have been obvious because the
16 ordinary person skilled in the art would have been motivated to correct the PCR according to any
17 delay in transmission produced by the multiplexing of the duplicated packets.

18 Regarding claim 19, while Unger and Colligan taught that NULL packets were inserted
19 into the packet stream to fill unused bandwidth (Unger Paragraph 0010), Unger and Colligan did
20 not specifically disclose deleting NULL packets from the content stream. However, it would
21 have been obvious to the ordinary person skilled in the art at the time of invention to have
22 deleted NULL packets for the amount of bandwidth used by the newly added duplicate packets.

1 This would have been obvious because the ordinary person skilled in the art would have been
2 motivated to maintain the proper bandwidth usage.

3 Regarding claim 20, Unger and Colligan disclosed that the selecting, duplicating,
4 identifying, inserting and clearing functions are carried out in an offline selective encryption
5 processor (OSEP) [See Unger Fig. 12].

6 Regarding claim 37, Unger and Colligan disclosed comprising an add/drop re-multiplexer
7 that deletes either the selected packets or the duplicate copies depending upon a target receiver's
8 decryption capability [See Unger Paragraph 0065].

9 Claims 3-6, 9-14, 21-28, 31-33, and 38 are rejected under 35 U.S.C. 103(a) as being
10 unpatentable over the combination of Unger and Colligan as applied to claim 1 above, and
11 further in view of Sezer et al. (US Patent Application Publication 2003/0118243) hereinafter
12 referred to as Sezer.

13 Unger and Colligan taught the selective encryption system as claimed, but failed to
14 discuss trick play.

15 Sezer, on the other hand, teaches the use of trick plays in a video on demand system
16 including identifying packets of content used in trick play modes (See Sezer Paragraphs 0158-
17 0159), and creating forward and reverse trick mode content fields and forward and reverse trick
18 mode index tables (See Sezer Paragraphs 0156-0157), modifying the forward and reverse trick
19 mode index tables to account for insertion of the duplicate copies (See Sezer Paragraphs 0158-
20 0159), wherein the packets of the content used in trick play modes comprise intra-coded frames
21 (See Sezer Paragraph 0081), and storing the forward and reverse trick mode files, the forward
22 and reverse trick mode index tables on a VOD server (See Sezer Paragraphs 0156-0159).

7 Claims 1-38 have been rejected.

10 Any inquiry concerning this communication or earlier communications from the
11 examiner should be directed to MATTHEW T. HENNING whose telephone number is
12 (571)272-3790. The examiner can normally be reached on M-F 8-4.

13 If attempts to reach the examiner by telephone are unsuccessful, the examiner's
14 supervisor, Kim Vu can be reached on (571) 272-3859. The fax phone number for the
15 organization where this application or proceeding is assigned is 571-273-8300.

16 Information regarding the status of an application may be obtained from the Patent
17 Application Information Retrieval (PAIR) system. Status information for published applications
18 may be obtained from either Private PAIR or Public PAIR. Status information for unpublished
19 applications is available through Private PAIR only. For more information about the PAIR
20 system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR
21 system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would

Art Unit: 2431

- 1 like assistance from a USPTO Customer Service Representative or access to the automated
- 2 information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

3
4 /Matthew T Henning/
5 Examiner, Art Unit 2431